

177. (New) The fuel cell electrode of claim 174 wherein said load is about 0.05
mg/cm² or less. F

REMARKS

Restriction Requirement

The examiner issued a restriction requirement between Group I (claims 48-91) and Group II (claims 92-147). The claims in Group I have been cancelled.

The rejection for Anticipation by Reddy et al and Lin

The examiner rejected claims 92-147 as anticipated under 35 U.S.C. §102(b) by Reddy et al ("Reddy"). The examiner also rejected claims 92-105 under 35 U.S.C. §102(e) and as anticipated by Lin.

Response

The examiner has the burden to establish a *prima facie* case of unpatentability of the pending claims on any grounds, including anticipation. MPEP 2142; *In re Oetiker*, 24 U.S.P.Q.2d 1443 (Fed. Cir. 1992). In order to establish a case of *prima facie* anticipation, the examiner must establish that a prior art reference discloses every limitation of the claimed invention either explicitly or inherently. *Atlas Powder Co. v. Ireco Inc.*, 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed. Cir. 1999).

Claim 92 reads as follows:

92. A fuel cell electrode produced by a process comprising:
providing one or more vaporizable noble metals;
thermally converting said one or more noble metals into **a vapor**; and

depositing said vapor onto a gas permeable support in an amount sufficient to produce a catalytically effective load consisting essentially of said one or more noble metals on said support.

Emphasis added. Claim 114 reads:

114. A fuel cell electrode comprising a support comprising a deposit disposed thereon, said deposit comprising a catalytically effective load of an electrocatalyst comprising an electrocatalytic active area at least in part comprising **rod-shaped structures**.

Emphasis added.

The examiner has not pointed to a teaching or suggestion in Reddy or in Lin to **thermally** convert one or more noble metals **into a vapor** and then to deposit that vapor onto a gas permeable support. The comparative testing, discussed briefly above, establishes that this claimed procedure produces a novel coating structure. This novel structure is indicated in the limitation of claim 114, which specifies the presence of "rod-shaped structures," and in the limitation of claims 116-117 that the deposit of claim 114 "further comprises particles of said electrocatalyst comprising an outer surface, wherein said electrocatalytic active area comprises a majority of said outer surface of said particles."

The claimed product has unique morphological features. The examiner has not pointed to a teaching or suggestion of these unique morphological features in either Lin or Reddy, and has not established a *prima facie* case of anticipation..

The examiner has not established a case of *prima facie* obviousness

The examiner did not issue a rejection under 35 U.S.C. § 103 on the grounds that the claims are obvious. The references cited by the examiner do not establish a case of *prima facie* obviousness of either the claimed product or the claimed method.

In order to establish that the claims are *prima facie* obvious over the prior art, the examiner must point to two things in the prior art, and not in the applicant's disclosure--(1) the suggestion of the invention, and (2) the expectation of its success. *In re Vaeck*, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). See also MPEP 2143.

The examiner has not pointed to any teaching or suggestion to **thermally** convert one or more noble metals **into a vapor** and then to deposit that vapor onto a gas permeable support. Claims 92-113. Hence, the examiner has not pointed to the product produced by such a thermal conversion/deposition process. The examiner certainly has not pointed to a teaching or suggestion of a catalytic coating comprising the claimed "rod-shaped structures" (claim 114), or comprising "particles of said electrocatalyst comprising an outer surface, wherein said electrocatalytic active area comprises a majority of said outer surface of said particles" (claim 116-117).

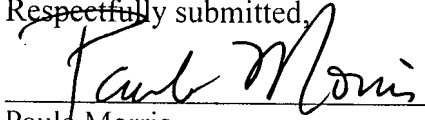
The examiner therefore has not pointed to a teaching or suggestion of the "invention" in the cited references. *In re Vaeck*, 20 U.S.P.Q.2d at 1442; MPEP 2143. Nor has the examiner pointed to a teaching or suggestion in the cited references that it would have been desirable to modify Reddy or Lin in the manner required to form a catalytic coating having the claimed features. MPEP 2143.01; *In re Brouwer*, 37 U.S.P.Q.2d 1663, 1666 (Fed. Cir. 1995). The examiner certainly has not pointed to teaching or suggestion that any significant advantage would be obtained by making the necessary modification(s).

For the foregoing reasons, the examiner has not established a case of *prima facie* obviousness of the claims.

CONCLUSION

For all of the foregoing reasons, Applicant respectfully requests that the examiner withdraw the rejections and allow all of the pending claims. Applicant also requests entry and allowance of the new claims, which focus on additional features of the novel and non-obvious coating which are not taught or suggested in the cited references.

Respectfully submitted,



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